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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,678	02/17/2000	Lawrence Stallman	2135.650	7646

7590

12/18/2002

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EXAMINER

SAADAT, CAMERON

ART UNIT

PAPER NUMBER

3713

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/505,678

Applicant(s)

STALLMAN ET AL.

Examiner

Cameron Saadat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

In response to Amendment filed on 10/8/02, Claims 39-51 are pending. Claims 1-38 have been canceled.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 39-46 and 49-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms “proximal” (as per claims 39 and 43) and “substantially” (as per claim 39) create uncertainty as to where the control mechanism is located on the weapon grip.

Claims 40-42, 44-46, 49, and 50-51 are rejected for incorporating the above errors from their respective parent claims by dependency.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. **Claims 39, 41, 43, 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. (U.S. Patent No. 5,864,481) in view of McCauley (U.S. Patent No. 6,287,198).**

Regarding claim 39, Gross et al. discloses a portable, wearable, information apparatus for collecting, coordinating, and communicating information, said system being capable of providing real-time situational awareness in armed conflict conditions, said system comprising: a power supply (column 6, lines 53-57); a computer 200 for controlling functions of the apparatus; a software interface 300 for interacting with the computer; a display for displaying information processed by the computer (column 1 line 46); a weapon communicable connected to the computer (column 7, lines 8-12), and having a trigger for firing the weapon; the weapon having a grip for handling the weapon, said grip located proximal the trigger; the weapon having a barrel including a bore, said bore having an axis extending longitudinally therethrough (see Fig. 5); wherein the software interface is controlled by weapon mounted cursor control device 250 for positioning a cursor (column 5, line 51) and an actuating mechanism for performing control, selection, and action functions on the software interface (column 5, lines 55-58).

Gross et al. further teaches computer control pad 550 located directly on the weapon proximal a rear facing portion of the grip, mounted for access by either left or right handed users, while maintaining the user's hand in the firing position (column 7, lines 50-56). It is not explicitly disclosed that the computer control pad comprises an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented

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substantially co-parrallel to the axis of the weapon bore. However, McCauley discloses a weapon comprising trigger 24 and computer control mechanism 30 comprising an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented substantially co-parrallel to the axis of the weapon bore (See Fig. 1, ref. 30). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the control mechanism described in Gross et al., by providing a control mechanism with an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented substantially co-parrallel to the axis of the weapon bore, in light of the teachings of McCauley in order to allow a user to depress the trigger while manipulating the controller with the thumb (McCauley, column 8, lines 3-5), thereby allowing the user to adjust controls and use features of the weapon without removing the hand from the firing position (Gross et al., column 7, lines 52-56).

Regarding claim 41, Gross et al. discloses an apparatus further comprising a software interface comprising at least one pull-down menu (column 5, line 57) containing words being alternately descriptive of combat scenarios and directives (column 12, line 61); a message window for receiving and displaying words selected from the pull-down menu; and a means for selectively transmitting a message contained in the message window (column 12, lines 62-65).

Regarding claim 43, Gross et al. discloses a portable, wearable, information apparatus for collecting, coordinating, and communicating information, said system being capable of providing real-time situational awareness in armed conflict conditions, said system comprising: an input/output device for interfacing the computer with components of the system (column 2, lines 64-65), wherein the input/output device comprises voltage converters 244, data relays, and

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plug-in/plug-out connectors for providing means for quickly removing and exchanging components (column 1, lines 60-64; column 3, lines 22-30); a display for displaying information processed by the computer (column 1 line 46); a voiceless, wireless communication means (column 12, lines 62-63); a user position location device 245; a power supply (column 6, lines 53-57); a computer 200 for controlling functions of the apparatus; a software interface 300 for interacting with the computer; a weapon communicable connected to the computer (column 7, lines 8-12), and having a trigger for firing the weapon; the weapon having a grip for handling the weapon, said grip located proximal the trigger; the weapon having a barrel including a bore, said bore having an axis extending longitudinally therethrough (see Fig. 5); wherein the software interface is controlled by weapon mounted cursor control device 250 for positioning a cursor (column 5, line 51) and an actuating mechanism for performing control, selection, and action functions on the software interface (column 5, lines 55-58). Gross et al. further teaches computer control pad 550, located directly on the weapon proximal a rear facing portion of the grip, mounted for access by either left or right handed users, while maintaining the user's hand in the firing position (column 7, lines 50-56). It is not explicitly disclosed that the computer control pad comprises an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented substantially co-parrallel to the axis of the weapon bore. However, McCauley discloses a weapon comprising trigger 24 and computer control mechanism 30 comprises an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented substantially co-parrallel to the axis of the weapon bore (See Fig. 1, ref. 30). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the control mechanism

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described by Gross et al., by providing a control mechanism with an axis extending normally, located proximal a rear facing portion of the grip such that the axis of the control mechanism is oriented substantially co-parrallel to the axis of the weapon bore, in light of the teachings of McCauley, in order to allow a user to depress the trigger while manipulating the controller with the thumb (McCauley, column 8, lines 3-5), thereby allowing the user to adjust controls and use features of the weapon without removing the hand from the firing position (Gross et al., column 7, lines 52-56).

Regarding claim 49, Gross et al. discloses an apparatus wherein words which are contained in the pull-down menu may be input by a user (column 12, line 64).

Regarding claim 50, Gross et al. discloses an apparatus wherein the input/output device, but does not explicitly disclose a digital/analog data converting means. However, it is the examiner's position the use of digital/analog data converting means is notoriously old and well known for converting digital pulses into analog signals so that the signal can be used by an analog device, such as the speaker disclosed by Gross et al. (column 9, line 9). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the input/output device described by Gross et al., by providing a digital/analog converting means, for converting digital pulses into analog signals so that the signal can be used by an analog device, such as a speaker.

Regarding claim 51, Gross et al. discloses an apparatus wherein the input/output device further includes video format converting means (column 5, line 64).

6. Claims 40, 42, and 44-46, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. (U.S. Patent No. 5,864,481) in view of McCauley (U.S. Patent No. 6,287,198), further in view of Magid et al. (U.S. Patent No. 5,764,873).

Regarding claims 40 and 44, Gross et al. discloses a software interface 300, comprising a graphical icon-based user interface (column 12, line 50), embodied in a computer readable medium communicably connected to a weapon mounted cursor control device. A specific click-and-carry method of cursor control is not explicitly disclosed. However, Magid et al. discloses a click-and-carry method of cursor control comprising in sequence: orienting a cursor at a first location proximal a graphical icon displayed; depressing an actuating mechanism to select the graphical icon (column 8, line 25); releasing the actuating mechanism (column 8, lines 31-32); orienting the cursor at a second location physically separate from the first location; depressing the actuating mechanism to release the graphical icon at the second location (column 9, lines 11-12). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the user interface described by Gross et al., by providing a modified click-and-carry method of cursor control, in light of the teachings of Magid et al., in order to allow a user to move icons without requiring the user to hold a button, actively depressed during the move (see Magid et al., column 8, lines 7-14).

Regarding claims 42 and 46, Gross et al. discloses a control mechanism 550, but does not specifically disclose a joystick for access by a thumb of a user. However, McCauley discloses an apparatus wherein the control mechanism comprises a joystick 30 for access by a thumb of a user. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the control mechanism described by Gross et al., providing a thumb-controlled

joystick, in light of the teachings of McCauley, in order to provide a more ergonomic control device (see McCauley, column 1, lines 32-34).

Regarding claim 45, Gross et al. discloses an apparatus further comprising a software interface comprising at least one pull-down menu (column 5, line 57) containing words being alternately descriptive of combat scenarios and directives (column 12, line 61); a message window for receiving and displaying words selected from the pull-down menu; means for selectively transmitting a message contained in the message window (column 12, lines 62-65).

7. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. (U.S. Patent No. 5,864,481) in view of Magid et al. (U.S. Patent No. 5,764,873).

Regarding claim 47, Gross et al. discloses a portable, wearable, information apparatus for collecting, coordinating, and communicating information, said system being capable of providing real-time situational awareness in armed conflict conditions, said system comprising: a power supply (column 6, lines 53-57); a computer 200 for controlling functions of the apparatus; a software interface 300 for interacting with the computer; a display for displaying information processed by the computer (column 1 line 46); a weapon communicable connected to the computer (column 7, lines 8-12), and having a trigger for firing the weapon; the weapon having a grip for handling the weapon, said grip located proximal the trigger; wherein the software interface is controlled by weapon mounted cursor control device 250 for positioning a cursor (column 5, line 51) and an actuating mechanism for performing control, selection, and action functions on the software interface (column 5, lines 55-58). Gross et al. further teaches computer control pad 550 located directly on the weapon. A specific click-and-carry method of cursor control is not explicitly disclosed. However, Magid et al. discloses a click-and-carry method of

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cursor control comprising in sequence: orienting a cursor at a first location proximal a graphical icon displayed; depressing an actuating mechanism to select the graphical icon (column 8, line 25); releasing the actuating mechanism (column 8, lines 31-32); orienting the cursor at a second location physically separate from the first location; depressing the actuating mechanism to release the graphical icon at the second location (column 9, lines 11-12). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the user interface described by Gross et al., by providing a modified click-and-carry method of cursor control, in light of the teachings of Magid et al., in order to allow a user to move icons without requiring the user to hold a button, actively depressed during the move (see Magid et al., column 8, lines 7-14).

Regarding claim 48, Gross et al. discloses an apparatus further comprising a software interface comprising at least one pull-down menu (column 5, line 57) containing words being alternately descriptive of combat scenarios and directives (column 12, line 61); a message window for receiving and displaying words selected from the pull-down menu; means for selectively transmitting a message contained in the message window (column 12, lines 62-65).

Response to Arguments

8. Applicant's arguments with respect to claims 39-51 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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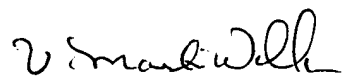
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is 703-305-5490. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on 703-308-4119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

CS
December 13, 2002


VALENCIA MARTIN-WALLACE
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